## **CLAIMS**

## What is claimed is

1. A method for the prevention and treatment of obesity, syndrome X, diabetes,

5 hypercholesterolemia, atherosclerotic complications, ischemia, thrombosis, and cardiovascular conditions said method comprising administering to a host in need thereof a polycosanol composition of matter comprised of 35% to 55% of long chain aliphatic alcohols, wherein said alcohols are selected from the group consisting of 1-hexacosanol (~20%-30%), 1
octacosanol (~15%-25%), 1-triacontanol (~2%-4%) and 1-tetracosanol (~1%-3%).

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2. A method for the prevention and treatment of obesity, syndrome X, diabetes, hypercholesterolemia, atherosclerotic complications, ischemia, thrombosis, and cardiovascular conditions said method comprising administering to a host in need thereof a polycosanol composition of matter comprised of 75% - 100% of long chain aliphatic alcohols, wherein said alcohols are selected from the group consisting of 1-hexacosanol (~30%-50%), 1-octacosanol (~25%-45%), 1-triacontanol (~4%-10%) and 1-tetracosanol (~3%-9%).

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- 3. The method of claim 1 wherein the polycosanol composition is administered in a dosage selected from 0.01 to 200 mg/kg of body weight.
- 4. The method of claim 1 wherein the route of the administration is selected from the group consisting of oral, topical, suppository, intravenous, and intradermic, intragaster, intramusclar, intraperitoneal and intravenous administration in an appropriate pharmaceutical formula.
- 5. The method of claim 1 wherein the polycosanol concentration in an appropriate pharmaceutical formula is selected from 0.01% to 100%.

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- 6. The method of claim 2 wherein the polycosanol composition is administered in a dosage selected from 0.01 to 200 mg/kg of body weight.
- 7. The method of claim 2 wherein the route of the administration is selected from the group consisting of oral, topical, suppository, intravenous, and intradermic, intragaster, intramusclar, intraperitoneal and intravenous administration in an appropriate pharmaceutical formula.
- 8. The method of claim 2 wherein the polycosanol concentration in an appropriate pharmaceutical formula is selected from 0.01% to 100%.